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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,524	07/24/2003	Thomas Joseph Corden	2075-46	8153

23117 7590 12/08/2006

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EXAMINER

STAIKOVICI, STEFAN

ART UNIT PAPER NUMBER

1732

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/625,524	CORDEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Stefan Staicovici	1732	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13-23 and 38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-23 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/15/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 15, 2006 has been entered.

### ***Response to Amendment***

2. Applicants' amendment filed November 15, 2006 has been entered. Claims 13-23 and 38 are pending in the instant application.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-21, 23 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Berg (US Patent No. 5,225,129) in view of Clendinning *et al.* (US Patent No. 3,852,913).

Van der Berg ('129) teaches the basic claimed process of molding a biodegradable polymeric article including, providing a shaped fibrous preform in a mold, injecting a

biodegradable composition in said mold to impregnate said fiber preform and curing said biodegradable composition to form a biodegradable polymer impregnated fiber article (see col. 6, lines 15-50).

Regarding claim 13, although Van der Berg ('129) teaches a biodegradable composition including cyclic ester monomers, Van der Berg ('129) does not teach that said composition includes oligomers of said cyclic monomers. However, it is well known that in making forming a cyclic ester polymer the initial composition may include either monomers or oligomers. Specifically, Clendinning *et al.* ('913) teach that in forming a cyclic ester polymer, either monomers or oligomers can be used (see col. 5, lines 41-50). Therefore, it would have been obvious for one of ordinary skill in the art to provide oligomers as taught by Clendinning *et al.* ('913) as an equivalent alternative to the monomers in the process of Van der Berg ('129) because Clendinning *et al.* ('913) specifically teach that monomers and oligomers are equivalent alternatives when forming a cyclic ester polymer and also because, Van der Berg ('129) teaches a biodegradable composition including a cyclic ester polymer, hence suggesting the oligomers of Clendinning *et al.* ('913).

In regard to claims 14-15, Van der Berg ('129) teaches a fibrous preform that is a fabric (see col. 6, line 32), hence the fibers are oriented in a specific direction that is maintained during the injection process.

Specifically regarding claims 16-20, both Van der Berg ('129) (see col. 2, lines 39-40) and Clendinning *et al.* ('913) (see col. 5, lines 41-44) teach a  $\epsilon$ -caprolactone resin (thermoplastic resin). Further, Van der Berg ('129) teaches a lactide, glycolide and a caprolactone fiber

(aliphatic polyesters), hence teaching a fiber having a different biodegradable rate than that of the injected resin.

Regarding claim 21, Van der Berg ('129) teaches fabrics as a fibrous preform, hence teaching long, continuous fibers.

In regard to claims 23 and 38, Van der Berg ('129) teaches injecting a biodegradable composition in said mold to impregnate said fiber preform and curing said biodegradable composition to form a biodegradable polymer impregnated fiber article (see col. 6, lines 15-50).

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Berg (US Patent No. 5,225,129) in view of Clendinning *et al.* (US Patent No. 3,852,913) and in further view of Dunn *et al.* (US Patent No. 4,655,777).

Van der Berg ('129) in view of Clendinning *et al.* ('913) teaches the basic claimed process as described above.

Regarding claim 22, although Van der Berg ('129) teaches that a fibrous preform having fibers of any length and thickness (diameter), wherein said preform is in the form of a fabric (see col. 6, lines 30-35), Van der Berg ('129) in view of Clendinning *et al.* ('913) do not specifically teach long, continuous fiber having a length to diameter ratio of 100:1 to 10,000:1. Dunn *et al.* ('777) teach a fiber reinforced biodegradable polymer product having long, continuous fibers of a length to diameter ratio of 100:1 to 1000:1 (see col. 10, lines 55-65). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a fabric having long, continuous fibers of a length to diameter ratio of 100:1 to 1000:1 as taught by Dunn *et al.* ('777) in the process of Van der Berg ('129) in view of Clendinning *et al.* ('913) because Dunn *et al.*

(‘777) specifically teach that such fibers provide the best reinforcement, hence providing for an improved product and also, because both Dunn *et al.* (‘777) and Van der Berg (‘129) teach a fiber reinforced biodegradable polymer product, hence suggesting the use of the fibers of Dunn *et al.* (‘777) in the process of Van der Berg (‘129) in view of Clendinning *et al.* (‘913).

### ***Response to Arguments***

6. Applicant's arguments filed November 15, 2006 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

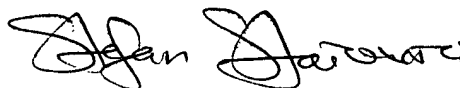
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD



Primary Examiner

12/5/06

AU 1732

December 5, 2006